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Apple and Pear Disease - Mucor Rot

Mucor rot is a fungal disease of apples and pears. The disease is a postharvest storage problem.

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The fungus survives in the soil as spores. Populations of these spores in the soil increase one to two months after fruit have been harvested. Photo by K. Peter. It does not occur as frequently as blue mold, however, losses due to Mucor infection can be serious.

Symptoms

Mucor rot develops at the calyx end of fruit or at wound punctures in the skin. Infected fruit completely decay after about two months in cold storage. Decaying fruit become very "juicy" and within this juice are abundant spores of the fungus. This is how secondary spread occurs, which is more common in

pears but not in apples.

Disease cycle

Mucor rot is caused by the fungus *Mucor piriformis*. The fungus survives in the soil as spores. Populations of these spores in the soil increase one to two months after fruit have been harvested. Spore populations severely decline during winter. Fruit that have fallen on the orchard floor are infected through contact with infested soil. Throughout the fall and winter, spores are dislodged from the decaying fruit into the soil. Spores are also dispersed by mowing, which scatters pieces of infected fruit. The fungus survives best in cool, dry soils. Fruit become most successful to infection one month before harvest. Fruit that are overmature are more susceptible to infection.

The fungus enters the packing house in soil that adheres to fruit bins. Fruit infection occurs during harvest or in the dump tank with rot developing in storage.

Management

- Remove fallen fruit from the orchard floor and destroy.
- Do not put fallen fruit in bins with harvested fruit.
- Harvest fruit in dry weather.
- Rinse fruit with fresh water to remove spores
- Dry fruit before placing in cold storage.
- Keep soil and debris off the underside of fruit bins.
- Disinfect dump tank solutions.
- Individual fruit wraps impregnated with copper helps reduce rot.

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